

Notice of Allowability

Application No.

10/754,574

Examiner

Dalzid Singh

Applicant(s)

FLING ET AL.

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 27 June 2007.
2. ☒ The allowed claim(s) is/are 1-11 and 33 which have been renumbered as 1-12 respectively.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DALZID SINGH
PRIMARY EXAMINER

Dalrid Singh

Allowable Subject Matter

1. Claims 1-11 and 33 are allowed.
2. The following is an examiner's statement of reasons for allowance:

Claim 1 is allowable because the prior art of record US Patent No. 5,903,375 to Horiuchi et al does not teach disclose a fibre optic communications network comprising:

a fibre optic loop;

an optical time domain reflectometry transceiver connected to one or both ends of the loop, for detecting disturbances to the loop; and

a multiplicity of modulators spaced along the loop and coupled non-intrusively to the fibre optic loop, for transmitting signals into the loop by non-optical local modulation of the fibre optic material; the transceiver being arranged to identify and decode those signals individually using optical time domain reflectometry, whereby telemetry may be performed from the modulators to the transceiver.

Claim 9 is allowable because the prior art of record US Patent No. 5,903,375 to Horiuchi et al does not teach disclose a method of telemetry on a fibre optic loop, using an optical time domain reflectometry transceiver connected to one or both ends of the loop, comprising applying a local modulation, at any one of a plurality of spaced locations along the loop, to transmit a signal non-intrusively into the loop by non-optical local modulation of the fibre optic material, and using the transceiver to identify and decode those signals using optical time domain reflectometry, whereby signals are sent from selected locations along the loop to the transceiver.

Claim 33 is allowable because the prior art of record US Patent No. 5,903,375 to Horiuchi et al does not teach disclose a fibre optic communications network comprising:

- a fibre optic loop;
- optical time domain reflectometry receiving and transmitting means connected to one or both ends of the loop, for detecting disturbances to the loop; and
- modulating means spaced at multiple locations along the loop and coupled non-intrusively to the fibre optic loop, for transmitting signals into the loop by non-optical local modulation of the fibre optic material;
- the receiving and transmitting means being arranged to identify and decode those signals individually using optical time domain reflectometry, whereby telemetry may be performed from the modulating means to the receiving and transmitting means.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Murase et al (US Patent No. 7,139,483) is cited to show optical communication system.

Mortimore et al (US Patent No. 5,010,586) is cited to show optical two-way transmission system with loop reflector modulator.

Imai et al (US Pub. No. 2004/0032642) is cited to show method and system for monitoring distributed Raman optical transmission line.

Hotate et al (US Patent No. 6,710,863) is cited to show apparatus and method for measuring characteristics of optical fibers.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalzid Singh whose telephone number is (571) 272-3029. The examiner can normally be reached on Mon-Fri 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

September 14, 2007

DALZID SINGH
PRIMARY EXAMINER

Dalzid Singh

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Raphael Valencia on 17 September 2007.

The application has been amended as follows:

Claims 12-32 and 34 have been cancelled.

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalzid Singh whose telephone number is (571) 272-3029. The examiner can normally be reached on Mon-Fri 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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September 17, 2007

DALZID SINGH
PRIMARY EXAMINER

Dalzid Singh